

*Providing Leadership in Environmental Entomology*

Department of Entomology, Soils, and Plant Sciences • 114 Long Hall • Clemson, SC 29634-0315 • Phone: 864-656-3111  
email:dpento@clemson.edu

## Silverfish & Firebrats

Homeowners usually see silverfish and firebrats when a cabinet door is opened, or a book or other object under which they were hiding is moved. Silverfish and firebrats are pests because they feed on a wide variety of materials, including glue, wallpaper paste, starch in clothing, book bindings, linen, rayon, paper and dried meats. Signs of their feeding are irregularly chewed patches.

**Description.** Three species of silverfish and one firebrat species are found in South Carolina. Silverfish and firebrats are very similar in appearance. They have flat, wingless, elongated bodies, 1/2 to 3/4 inch long that taper from head to tail. At the head are two long antennae with three long antennae-like structures at the tail. Depending on the species, silver to gray scales cover their bodies.



**Silverfish**

Clemson University Photo

**Life Cycle.** Adult silverfish may live two to eight years. In a lifetime, silverfish females lay about 100 eggs. They are laid singly or a few at a time and hatch in three to six weeks. They take on the adult color in four to six weeks.

Firebrats lay about 50 eggs at a time in batches. The eggs hatch in about two weeks under warm conditions. Young silverfish and firebrats look like the adults except for being smaller and white. Depending on the

species, silverfish and firebrats typically reach maturity in three to twenty-four months.



**Firebrat**

Clemson University Photo

**Habits.** Silverfish and firebrats are active at night and hide during the day. In general, silverfish prefer damp, cool areas and can be found throughout the home. Firebrats prefer hot places, such as near ovens, fireplaces, furnaces and hot water pipes. Silverfish and firebrats are typically brought into a home in food, books, paper, starched clothing and furniture. Their populations tend to increase slowly. If a large population is present in a house, it is usually an indication of longtime infestation.

**Nonchemical Control.** The first step to control is identification of the particular species that you have. Identification is helpful in determining the preferred living areas and food materials, which helps in locating the infestation. Many infestations are localized and altering the environment by eliminating moisture, sealing cracks and crevices, and removing potential food sources can greatly aid in control efforts.

You can prevent infestations of silverfish and firebrat by sanitation methods, such as removing old stacks of papers, magazines, books and fabrics. In addition, cleaning spilled food and discarding foods stored for long periods of time can be helpful. Since these pests often live between wall partitions, in insulation

materials, in books and papers, among bookshelves and in other protected places, sanitation, while important, is not entirely effective in reducing populations. Reducing moisture problems and lowering relative humidity in a home with dehumidifiers and fans is often helpful. After eliminating the infestation, sanitation helps prevent reinfestation.

**Chemical Control.** Insecticides need to be applied thoroughly to all possible hiding places including cracks, crevices, around steam and water pipes, closets and even attics. It may be necessary to drill small holes in the walls to treat large populations in wall voids. Control may take 10 to 14 days since silverfish and firebrats in wall voids must move out and contact the insecticides.

Many insecticides are labeled for use by homeowners against silverfish and firebrats. Products can be purchased at hardware and discount stores. Before using any pesticide, always read the label and follow directions and safety precautions. For extensive infestations, consider hiring a pest control professional.

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Prepared by Eric P. Benson, Extension Entomologist/Associate Professor, Janet McLeod Scott, Information Specialist and Patricia A. Zungoli, Extension Entomologist/Professor, Department of Entomology, Soils, and Plant Sciences, Clemson University.

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EHS/HS-20 (New 05/1999) (Revised 01/2001).